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Associations between internal and external sexual consent in a diverse national sample of women

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ABSTRACT

Sexual consent can be conceptualized as an internal willingness to engage in sexual behavior. To communicate this internal feeling, people use and interpret cues—both active and passive. We proposed and tested a model for the potential mechanisms underlying women's sexual consent, which predicted associations between women's internal feelings of consent and the consent cues communicated and interpreted in a given sexual encounter. Because research on sexual consent has consistently urged researchers to collect data from samples that are not primarily college-aged and White, we conducted a pilot systematic review of peer-reviewed sexual consent literature to confirm this need. We then used structural equation modeling to test our proposed model with data from a national sample diverse regarding age and race/ethnicity (n = 589). We found that women's internal consent feelings are associated with their use of active consent cues—especially nonverbal cues. Because passive cues were unrelated to women's internal consent, not resisting or not saying no should not be used to infer women's consent.

1. Introduction

The peer-reviewed literature lacks consistency in defining sexual consent (Beres, 2007; Muehlenhard, Humphreys, Jozkowski, & Peterson, 2016). Informed by these conceptual and empirical reviews, a recently published study defined sexual consent as *one's voluntary, sober, and conscious willingness to engage in a particular sexual behavior with a particular person within a particular context* (Willis & Jozkowski, 2019). This definition maintains that sexual consent is an internal experience—one that is distinct from sexual desire (Muehlenhard, 1995/1996; Peterson & Muehlenhard, 2007). To assess the variety of feelings associated with an internal conceptualization of sexual consent, one research team asked participants to write about the feelings that they associate with being willing to engage in sexual activity (Jozkowski, Sanders, Peterson, Dennis, & Reece, 2014). These researchers identified five sets of feelings related to internal consent: physical response, safety/comfort, arousal, agreement/want, and readiness. Whether somebody is willing to engage in a particular behavior with a particular person within a particular context depends on a multidimensional process of internal feelings.

Because people are not intuitively privy to the feelings of others, sexual consent cannot only be conceptualized as an internal experience (Hickman & Muehlenhard, 1999; Muehlenhard, 1995/1996). Rather, sexual partners must communicate their consent (Beres, 2007, 2014; Muehlenhard et al., 2016). Active consent communication refers to anything people *do* that indicates their consent and is diverse in practice; it can be verbal or nonverbal and explicit or implicit. People tend to rely on nonverbal consent cues (Beres, Herold, & Maitland, 2004; Jozkowski, Sanders, et al., 2014; Muehlenhard et al., 2016). Examples of nonverbal consent communication include moaning, positioning oneself to prepare for a sexual behavior, increasing physical contact, and making facial expressions (Beres, 2010, 2014; Hickman & Muehlenhard, 1999; Jozkowski, Peterson, Sanders, Dennis, & Reece, 2014). Of course, people also report communicating their sexual consent verbally—asking for sexual behavior directly, indicating sexual intent (e.g., requesting a condom), or using seemingly benign phrases (e.g., "we should go upstairs") in a sexual tone (Hickman & Muehlenhard, 1999; Jozkowski, Peterson, et al., 2014). There are also passive consent cues, whereby people *don't do* anything as their way of communicate their consent; this can include not resisting sexual activity or not saying no (Hickman & Muehlenhard, 1999; Jozkowski, Sanders, et al., 2014). In such instances, inaction or a lack of refusal is considered an indicator of consent. Because these passive cues are ambiguous, people may actively communicate their consent if they have

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elevated internal feelings of sexual consent.

Studying the mechanisms underlying women's sexual consent is important, because gender plays a role in sexual consent communication (Beres, 2007; Jozkowski, Peterson, et al., 2014; Muehlenhard et al., 2016). Traditional sexual scripts depict men as sexual initiators who proposition sex and women as sexual gatekeepers who decide whether sexual activity should occur (Jozkowski, Marcantonio, & Hunt, 2017; Wiederman, 2005). These sexual scripts persist (Jozkowski et al., 2017; Jozkowski & Peterson, 2013). That women and men are supposed to negotiate sex differently may be why research has shown that consent communication can vary by gender (Jozkowski et al., 2017; Willis et al., 2019). Women report using verbal cues more frequently if it is in response to a man's verbal initiation (Jozkowski & Peterson, 2013). However, if men do not initiate sex via verbal cues, the extent that women use a verbal cue is questionable (Jozkowski, Peterson, et al., 2014). Therefore, women's internal consent may also function based on the way their partner communicated consent—internalizations that in turn may relate to how women communicate their own consent.

1.1. Present study

Based on previous findings on sexual consent, we proposed a model of sexual consent for women. Internal consent feelings and consent communication cues are related (Jozkowski, Sanders, et al., 2014); however, the nature of this association remains unclear. Because women's sexual cognitions tend to precede their sexual behaviors (e.g., O'Sullivan & Brooks-Gunn, 2005), our model proposed that women's internal consent feelings predict the consent communication cues they report using (Fig. 1). Specifically, we hypothesized that heightened internal consent would be positively associated with the different types of active communication cues—explicit or implicit, verbal or nonverbal—and negatively associated with passive cues. Because the sexual consent process has been described as a negotiation and because women are socialized to be the gatekeepers of sexual activity, we also hypothesized that women's internal feelings of consent would be predicted by the types of consent communication cues they perceived their partners had used. Finally, we aimed to extend the sexual consent literature by examining data from a diverse national sample regarding age and race/ethnicity. To provide a robust justification for collecting a heterogeneous sample regarding these individual differences, we conducted a pilot systematic review to empirically demonstrate that previous studies have disproportionately relied on samples that are college-aged and White.

2. Method

2.1. Pilot systematic review

The purpose of the pilot systematic review was to compile age and racial/ethnic data reported in existing peer-reviewed research articles on sexual consent. We detailed our procedure, analysis, and results in Appendix A. In short, we identified peer-reviewed research articles published by January 2018 that presented sexual consent data collected from humans—resulting in 41 unique samples. The articles in our review presented sexual consent data from 12,295 participants (M = 299.37, SD = 345.74, median: 217, range: 5–1883). Accounting for sample size, the weighted average for mean age reported was 20.45 years; 85.4% of these samples consisted entirely of college students. Of the samples in our review, 79.3% of participants were identified as White, 4.3% as Hispanic, 4.1% as Black, 4.4% as Asian, and 3.7% as another race/ethnicity.

2.2. Participants

Acknowledging the need identified by our systematic review, we examined data from a racially/ethnically diverse national sample of 589 women in the United States. This sample represented the three most populous racial/ethnic identities in the United States: Hispanic/Latina Americans (n = 198), non-Hispanic/Latina Black Americans (n = 195), and non-Hispanic/Latina White Americans (n = 196). Further, our participants were 36.03 years old on average (SD = 12.39; range: 18–76). This average age was close to the average maximum age reported in our systematic review (i.e., 37.27). Most participants (86.4%) identified as heterosexual; 9.0% identified as bisexual, 1.4% as homosexual, and 3.2% as another sexual orientation. Participants were also primarily in an exclusive sexual relationship (88.3%); 8.0% were in

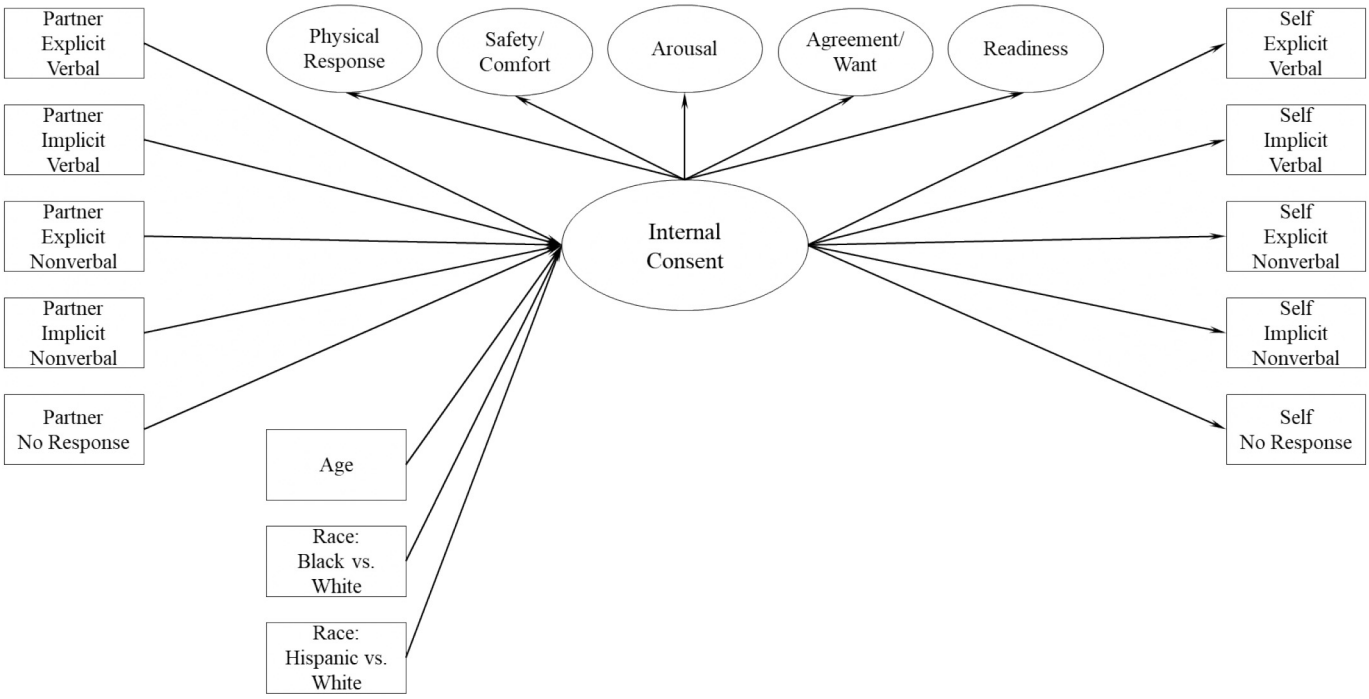

Fig. 1. Hypothesized model.

a non-exclusive relationship, and 3.7% were engaging in primarily casual sexual encounters.

Our participants varied in age based on their racial/ethnic identity, $F(2) = 40.61$, $p < .001$. Specifically, participants who identified as White, $M = 42.02$ years, $SD = 13.47$, were significantly older than those who identified as Hispanic/Latina, $M = 31.97$, $SD = 9.02$, $p < .001$, or Black, $M = 34.13$, $SD = 11.99$, $p < .001$.

2.3. Procedure

We examined data from a broader study designed to investigate the sexual well-being of women. We recruited participants through Qualtrics Survey Panels—an online national data aggregator. We used quota-based sampling to recruit approximately equal sample sizes of Hispanic/Latina, non-Hispanic/Latina Black, and non-Hispanic/Latina White participants. Eligibility criteria included being at least 18 years old, identifying as a woman, and having engaged in partnered sexual activity in the previous thirty days. Eligible participants in Qualtrics' panel were sent an incentivized invitation with the study link. Participants were first presented an informed consent document. After agreeing to participate, women began the survey questions. Women who participated received compensation from Qualtrics Survey Panels. All procedures were approved by the institutional review board at the University of Arkansas.

2.4. Measures

2.4.1. Internal Consent Scale

To assess internal feelings of sexual consent, we administered the Internal Consent Scale (ICS; Jozkowski, Sanders, et al., 2014). The directions were modified from the original scale; we asked participants to reference their most recent partnered sexual activity—rather than their most recent *consensual* partnered sexual activity. Participants indicated the extent that they had experienced particular feelings during this event on a four-point Likert-type scale ("Strongly disagree" to "Strongly agree"). This scale has twenty-five items and five factors: physical response (sample $\alpha = 0.89$), safety/comfort (sample $\alpha = 0.81$), arousal (sample $\alpha = 0.92$), agreement/want (sample $\alpha = 0.93$), and readiness (sample $\alpha = 0.90$). This measure has demonstrated similarly strong internal reliability in past research (αs > 0.90; Jozkowski, Sanders, et al., 2014). Higher values indicate stronger feelings of internal consent.

2.4.2. Consent communication

We asked participants to indicate how sexual consent was communicated during their most recent partnered sexual activity. We assessed sexual consent communication cues using single items that reflected five consent techniques identified in previous research (Hickman & Muehlenhard, 1999; Jozkowski, Canan, Rhoads, & Hunt, 2016). To report their own behaviors, participants could select (1) "I used direct verbal cues such as saying *I want to have sex*," (2) "I used indirect verbal cues (like hints) such as asking my partner to get a condom," (3) "I used direct non-verbal cues such as just starting to do the behavior (e.g., moving my partner's hands toward my genitals; starting to have sex)," (4) "I used indirect non-verbal cues such as making eye contact or touching my partner's arm, back, or legs," or (5) "I let the behavior happen without resisting or stopping it." Again, the active consent cues (i.e., 1–4) refer to styles of communication whereby people *do* something—explicit or implicit, verbal or nonverbal; passive cues (i.e., 5) exist when people *don't do* anything as their indicator of consent.

To assess participants' interpretation of their partner's sexual consent cues, we also asked women to indicate how their partner had communicated consent during their most recent sexual encounter. They could select from the same five types of consent communication cues.

As operationally defined, these types of consent cues were not necessarily mutually independent; participants were allowed to select as many cues as applied. Responses were dummy coded: 1 = endorsed the cue; 0 = did not endorse the cue. We also created a summed score, ranging from 0 to 4, to indicate the number of active consent communication cues women reported using and another summed score for the number of cues they interpreted their partner using.

2.5. Analysis

All data preparation, descriptive statistics, and bivariate associations were conducted using SPSS 25. Correlations assessed associations between the variables related to sexual consent, ANOVA models assessed differences between age groups and races/ethnicities regarding internal consent feelings, and chi-squared tests of association assessed group differences regarding consent communication cues. All tests were conducted at an α-level of 0.05.

We used the *lavaan* and *semTools* packages in *R* to analyze our data with structural equation models. Specifically, we used a two-step technique put forth by Anderson and Gerbing (1988). Per their recommendations, we first examined the measurement model and then assessed the structural associations between the latent variables. This two-step technique aims to establish the validity of the measures before testing the structural model.

First, we assessed whether the scale measuring internal feelings of sexual consent represented the five-factor structure proposed by the original ICS (Jozkowski, Sanders, et al., 2014). To achieve this, we conducted a confirmatory factor analysis for this scale. We examined fit statistics and factor loadings to determine if the proposed factor structure fit our data well; if each of the items significantly loaded onto the latent variable ($\alpha = 0.05$), then we retained the model for our next set of analyses.

Because the sample Jozkowski, Sanders, et al. (2014) used to validate the ICS primarily comprised White college students, we also conducted tests of measurement invariance to determine if this measure functioned similarly across age group and race/ethnicity. We started by examining whether the underlying factor structures were similar between groups (i.e., configural invariance). Next, we constrained the factor loadings across groups (i.e., metric invariance) and tested whether the data-model fit significantly worsened. Finally, we constrained the intercepts and then the error variances across groups (i.e., scalar and residual invariance, respectively) and again tested for worse fit with each progressive model.

Once confirming that the five-factor structure of the ICS fit our data and functioned similarly across age group and race/ethnicity, we tested the proposed structural model using SEM (Fig. 1). This model did not allow any error terms to correlate. Age was included as a continuous exogenous predictor of internal consent feelings; two index-coded variables tested mean differences in ICS scores regarding race/ethnicity (i.e., Hispanic/Latina vs. non-Hispanic/Latina White and non-Hispanic/Latina Black versus non-Hispanic/Latina White).

For the predicted paths, we reported standardized coefficients (β), unstandardized coefficients (B), and standard errors (SE). We also reported the significance of the standardized coefficients ($\alpha = 0.05$). Regarding data-model fit, we reported the χ^2 value and associated degrees of freedom for each model; non-significant χ^2 values indicate good model fit. For the data-model fit to be considered acceptable when the χ^2 value is not significant, Hu and Bentler (1999) recommended that the comparative fit index (CFI) and Tucker-Lewis index (TLI) should be > 0.95, the root mean square error of approximation (RMSEA) < 0.06, and the standardized root mean square residual (SRMR) < 0.08. We reported each of these fit statistics.

For model respecification, we examined Lagrange multiplier tests and eliminated non-significant direct effects. To compare nested models, we conducted χ^2 difference tests and calculated change scores for each of the fit indices. A better data-model fit would be reflected by a significant χ^2 difference test, increases in CFI and TLI, and decreases in SRMR and RMSEA.

Table 1
Descriptive statistics for Internal Consent Scale factors.

Measure	Mean	SD	Range	Skewness	Kurtosis	VIF
Internal consent						
Physical response	3.24	0.67	1–4	−0.782	0.146	3.095
Safety/comfort	3.52	0.51	1.29–4	−0.974	0.391	3.336
Arousal	3.52	0.63	1–4	−1.386	1.873	3.667
Agreement/want	3.70	0.45	2.20–4	−1.160	−0.062	2.852
Readiness	3.62	0.49	1.75–4	−0.886	−0.510	3.906

Table 2
Descriptive statistics for types of consent communication cues.

Consent cue	*n*	%
Self		
Explicit verbal	231	39.2
Explicit nonverbal	89	15.1
Implicit verbal	263	44.7
Implicit nonverbal	199	33.8
No response	283	48.1
Partner		
Explicit verbal	281	47.7
Explicit nonverbal	96	16.3
Implicit verbal	311	52.8
Implicit nonverbal	239	40.6
No response	214	36.3

All models were estimated using diagonally weighted least squares (DWLS). The DWLS estimation technique is recommended for data that are nonnormally distributed or categorical in nature (Muthén & Muthén, 2010). As almost all items across the measures were either Likert-type or dichotomous, they should be considered categorical.

3. Results

3.1. Descriptive statistics

Descriptive statistics for internal consent are reported in Table 1. All of the ICS subscales had at least an average of 3.24 out of 4. The values for symmetry and kurtosis for each scale suggested approximately normal univariate distributions (i.e., between −2 and +2; George & Mallery, 2010). The Variance Inflation Factors of these predictor variables ranged from 2.85 to 3.91 and suggested that these variables likely did not have multicollinearity issues (mean VIF = 3.371; Cohen, Cohen, West, & Aiken, 2003).

Descriptive statistics for consent communication cues are reported in Table 2. The most common cue that women reported using was the passive no response cue (48.1%). However, about a third of the participants reported using at least two different types of active consent communication cues. The average summed score for types of consent cues used was 1.33 (*SD* = 1.11). Participants most frequently reported that they perceived their partner had used implicit verbal cues (52.8%); they perceived 1.57 types of active cues on average (*SD* = 1.08).

Table 4
Bivariate associations between internal consent feelings and summed active consent communication cues.

	IC_P	IC_S	IC_A	IC_W	IC_R
Self_sum	0.25***	0.25***	0.20***	0.22***	0.20***
Partner_sum	0.14***	0.14***	0.11**	0.12**	0.09*

Note. Internal Consent Scale subscales: physical response (IC_P), safety/comfort (IC_S), arousal (IC_A), agreement/want (IC_W), and readiness (IC_R).
*p < .05. **p < .01. ***p < .001.

Table 5
Associations between age and Internal Consent Scale factors.

Age group	*n*	Physical response	Safety/ comfort	Arousal	Agreement/ want	Readiness
18–25	131	3.41^{a}	3.60^{a}	3.64^{a}	3.77^{a}	3.70^{a}
26–35	208	3.27^{a}	3.53	3.53	3.73	3.64
36–45	126	3.23	3.55	3.51	3.71	3.62
≥46	124	3.03^{b}	3.40^{b}	3.37^{b}	3.57^{b}	3.51^{b}
F-value		7.221***	3.777*	3.860**	4.664**	3.345*
df		3, 585	3, 585	3, 585	3, 585	3, 585
p-Value		< .001	.011	.009	.003	.019
R^2		0.036	0.019	0.019	0.023	0.017

Note. Groups that have different superscripts within a column significantly differ according to Bonferroni-corrected post hoc pairwise comparisons.
* $p < .05$.
** $p < .01$.
*** $p < .001$.

Table 3
Bivariate correlations between internal consent feelings and consent communication cues.

	IC_P	IC_S	IC_A	IC_W	IC_R	S_EV	S_IV	S_EN	S_IN	S_NR	P_EV	P_IV	P_EN	P_IN	P_NR
IC_P	–														
IC_S	0.68***	–													
IC_A	0.81***	0.69***	–												
IC_W	0.62***	0.69***	0.71***	–											
IC_R	0.65***	0.81***	0.70***	0.77***	–										
S_EV	0.10*	0.11**	0.10*	0.14***	0.11**	–									
S_IV	0.13**	0.12**	0.09*	0.10*	0.08	0.25***	–								
S_EN	0.22***	0.19***	0.18***	0.14***	0.15***	0.01	0.19***	–							
S_IN	0.15***	0.18***	0.12**	0.14***	0.14***	0.01	0.17***	0.36***	–						
S_NR	−0.02	0.01	−0.02	−0.03	0.00	−0.17***	0.02	0.08	0.13**	–					
P_EV	−0.01	0.03	−0.02	0.02	−0.02	0.47***	0.16***	−0.00	0.00	0.00	–				
P_IV	0.14***	0.08	0.07	0.07	0.03	0.24***	0.52***	0.26***	0.26***	0.02	0.19***	–			
P_EN	0.12**	0.10*	0.10*	0.11**	0.11**	0.04	0.12**	0.43***	0.36***	0.13**	−0.09*	0.15***	–		
P_IN	0.10*	0.12**	0.10*	0.08*	0.08	−0.02	0.12**	0.38***	0.51***	0.22***	−0.05	0.19***	0.36***	–	
P_NR	0.11*	0.10*	0.12**	0.08*	0.11	−0.04	0.08	0.32***	0.28***	0.49***	−0.10*	0.14**	0.16***	0.27***	–

Note. Internal Consent Scale subscales: physical response (IC_P), safety/comfort (IC_S), arousal (IC_A), agreement/want (IC_W), and readiness (IC_R). Consent communication cues that women reported: self explicit verbal (S_EV), self implicit verbal (S_IV), self explicit nonverbal (S_EN), self implicit nonverbal (S_IN), self no response (P_NR), partner explicit verbal (P_EV), partner implicit verbal (P_IV), partner explicit nonverbal (P_EN), partner implicit nonverbal (P_IN), partner no response (P_NR).
* $p < .05$.
** $p < .01$.
*** $p < .001$.

Table 6
Associations between age and consent communication.

Age group	*n*	Explicit verbal (self)	Implicit verbal (self)	Explicit nonverbal (self)	Implicit nonverbal (self)	No response (self)	Explicit verbal (partner)	Implicit verbal (partner)	Explicit nonverbal (partner)	Implicit nonverbal (partner)	No response (partner)
18–25	131	45.8	21.4	55.7	39.7	39.7	51.1	22.1	64.1	51.9	35.9
26–35	208	40.4	16.8	48.6	34.1	51.9	51.4	20.7	54.8	39.4	33.7
36–45	126	40.5	12.7	42.1	34.9	50.8	45.2	11.9	52.4	42.1	37.3
≥46	124	29.0	8.1	29.0	25.8	47.6	40.3	7.3	37.9	29.0	40.3
Chi-square		7.981	9.855	20.366***	5.658	5.305	4.802	15.403**	18.125***	14.060**	1.561
df		3	3	3	3	3	3	3	3	3	3
p-Value		.046	.020	< .001	.130	.151	.187	.002	< .001	.003	.668
Cramer's V		0.116	0.129	0.186	0.098	0.095	0.090	0.162	0.175	0.155	0.051

** $p < .01$.
*** $p < .001$.

Table 7
Associations between race/ethnicity and Internal Consent Scale factors.

Racial/ethnic group	*n*	Physical response	Safety/comfort	Arousal	Agreement/want	Readiness
Hispanic	198	3.34[a]	3.58[a]	3.58	3.75	3.69[a]
Black	195	3.26	3.58[a]	3.53	3.70	3.62
White	196	3.13[b]	3.42[b]	3.44	3.64	3.55[b]
F-value		5.080**	5.886**	2.673	2.880	4.024*
df		2, 586	2, 586	2, 586	2, 586	2, 586
p-Value		.006	.003	.070	.057	.018
R^2		0.017	0.020	0.009	0.010	0.014

Note. Groups that have different superscripts within a column significantly differ according to Bonferroni-corrected post hoc pairwise comparisons.
* $p < .05$.
** $p < .01$.

3.2. Bivariate associations

3.2.1. Sexual consent

Bivariate correlations between the sexual consent variables are depicted in Table 3. All of the internal consent subscales were strongly correlated with each other, $rs \geq 0.62$, $ps < .001$. Active consent communication cues tended to be positively correlated with internal consent feelings, $rs \geq 0.09$, $ps < .030$. The only exception was that implicit verbal cues were not associated with readiness, $r = 0.08$, $p = .060$. In general, nonverbal consent cues were more strongly correlated with internal consent feelings than verbal cues. The passive consent communication cue was not associated with any of the internal consent subscales, $rs \leq |0.03|$ $ps \geq .448$.

Regarding women's perceptions of their partner's consent cues, nonverbal or no response consent cues tended to be significantly correlated with their own internal consent feelings, $rs \geq 0.08$, $ps < .048$. However, reporting that their partner had used verbal cues was typically not associated with women's internal consent feelings. The only significant correlation was between perceiving a partner had used implicit verbal cues and reporting greater feelings of physical response, $r = 0.14$, $p < .001$.

The strongest correlations between women's own consent communication cues and those they perceived their partner had used were for the same types of cues. For example, women who reported that they had used explicit verbal cues were most likely to perceive that their partner had used explicit verbal cues. This was the case for each of the five types of consent communication cues, $rs \geq 0.43$, $ps < .001$. Further, women who reported using more types of active consent cues reported that their partner used more as well, $r = 0.66$, $p < .001$.

All of the internal consent subscales were positively correlated with summed scores for types of consent cues used (Table 4). Women with higher levels of the five internal consent feelings used increasingly diverse constellations of consent cues reported, $rs \geq 0.20$, $ps < .001$. Regarding women's perceptions of their partner's cues, these associations with internal consent were in the same direction but consistently weaker, $rs \geq 0.09$, $ps \leq .033$.

3.2.1.1. By age. Based on the distributions of the data and on meaningful life stages, we created four age groups: 18–25, 26–35, 36–45, and ≥46. Age was associated with all five subscales of internal consent, $Fs(3, 585) \geq 3.35$, $ps \leq .019$, $R^2s \geq 0.017$ (Table 5). Specifically, participants aged 18–25 consistently scored higher than those who were at least 46 years old. Similarly, people who were relatively younger more frequently reported using or perceiving three of the consent communication cues, $\chi^2s(3) \geq 14.06$, $ps \leq .003$, $\varphi_C s \geq 0.155$ (Table 6).

3.2.1.2. By race/ethnicity. Race/ethnicity was associated with three subscales of internal consent feelings: physical response, safety/comfort, and readiness, $Fs(2, 586) \geq 4.02$, $ps \leq .018$, $R^2s \geq 0.014$ (Table 7). Specifically, participants who identified as Hispanic/Latina consistently scored higher than those who identified as White.

Table 8
Associations between race/ethnicity and consent communication.

Racial/ethnic group	*n*	Explicit verbal (self)	Implicit verbal (self)	Explicit nonverbal (self)	Implicit nonverbal (self)	No response (self)	Explicit verbal (partner)	Implicit verbal (partner)	Explicit nonverbal (partner)	Implicit nonverbal (partner)	No response (partner)
Hispanic	198	43.9	18.7	47.5	39.9	48.0	49.0	23.2	57.6	44.4	37.9
Black	195	39.0	16.4	44.1	35.9	48.2	47.7	15.9	53.3	42.6	34.4
White	196	34.7	10.2	42.3	25.5	48.0	46.4	9.7	47.4	34.7	36.7
Chi-square		3.539	5.910	1.084	9.697	0.003	0.259	13.268**	4.086	4.361	0.547
df		2	2	2	2	2	2	2	2	2	2
p-Value		.170	.052	.582	.008	.999	.879	.001	.130	.113	.761
Cramer's V		0.078	0.100	0.043	0.128	0.002	0.021	0.150	0.083	0.086	0.030

** $p < .01$.

Table 9
Tests of measurement invariance for the Internal Consent Scale by age groups.

Model	χ^2	*df*	CFI	TLI	RMSEA	SRMR	$\Delta\chi^2$	Δdf	ΔCFI	ΔTLI	ΔRMSEA	ΔSRMR
Configural invariance	578.88	1080	0.916	0.906	0.050	0.065	–	–	–	–	–	–
Metric invariance	934.12	1152	0.965	0.964	0.031	0.083	74.04	72	0.049	0.057	−0.019	0.018
Scalar invariance	954.87	1209	0.965	0.965	0.030	0.083	57.37	57	0.000	0.001	−0.001	0.001
Residual invariance	1004.52	1284	0.965	0.967	0.029	0.087	79.27	75	0.000	0.002	−0.001	0.004

None of the chi-squared difference tests between nested models were significant (α = 0.05).

Table 10
Tests of measurement invariance for the Internal Consent Scale by race/ethnicity.

Model	χ^2	*df*	CFI	TLI	RMSEA	SRMR	$\Delta\chi^2$	Δdf	ΔCFI	ΔTLI	ΔRMSEA	ΔSRMR
Configural invariance	559.15	810	0.917	0.907	0.051	0.062	–	–	–	–	–	–
Metric invariance	811.70	858	0.957	0.955	0.036	0.077	51.98	48	0.041	0.048	−0.016	0.014
Scalar invariance	833.85	896	0.956	0.956	0.035	0.077	52.65	38	−0.001	0.001	0.000	0.001
Residual invariance	881.08	946	0.955	0.957	0.035	0.081	67.90*	50	−0.001	0.001	0.000	0.004

Note. An asterisk (*) indicates that the chi-squared difference test between nested models was significant (α = 0.05).

Table 11
Direct effects from the hypothesized model (N = 589).

	β	B	SE	*p*-Value
Internal consent				
Age	−0.123	−0.005	0.002	.011
Black vs. White	0.044	0.047	0.051	.067
Hispanic vs. White	0.085	0.091	0.050	.355
Partner EV	0.011	0.011	0.044	.808
Partner IV	0.032	0.044	0.050	.375
Partner EN	0.079	0.081	0.048	.094
Partner IN	0.046	0.047	0.047	.312
Partner NR	0.114	0.120	0.045	.007
Self EV				
Internal consent	0.135	0.130	0.039	< .001
Self IV				
Internal consent	0.134	0.095	0.025	< .001
Self EN				
Internal consent	0.229	0.225	0.040	< .001
Self IN				
Internal consent	0.192	0.179	0.034	< .001
Self NR				
Internal consent	0.005	0.005	0.043	.909

Note. Underlined variables are exogenous variables. Refer to Fig. 1 for clarification.
β = coefficient with both latent and observed variables standardized; B = unstandardized coefficient; SE = standard error.
EV = explicit verbal cues; IV = implicit verbal cues; EN = explicit nonverbal cues; IN = implicit nonverbal cues; NR = no response cues.

Similarly, participants who identified as Hispanic/Latina more frequently endorsed implicit verbal cues than White participants, $\chi^2(3) = 13.27$, $p = .001$, $\varphi_C = 0.150$ (Table 8).

3.3. Structural equation model

3.3.1. Measurement model

The validated measurement model for the ICS fit our data well, $\chi^2(270) = 351.08$, $p = .001$; CFI = 0.997; TLI = 0.997; SRMR = 0.055; RMSEA = 0.023, 90% CI = 0.015–0.029. All factor loadings for the subscales were at least 0.830, $ps < .001$. Therefore, we retained the five-factor model: physical response, safety/comfort, arousal, agreement/want, and readiness.

3.3.1.1. Measurement invariance. Tests indicated that the assumptions of invariance across the age groups (i.e., 18–25, 26–35, 36–45, and ≥46) were tenable for all four types: configural, metric, scalar, and residual (Table 9). Tests indicated that the assumptions of invariance across the racial/ethnic groups (i.e., Hispanic/Latina, Black, and White) were clearly tenable for three types (Table 10). Even though the model that constrained error variances was a slightly worse fit according to some of the indices, this model essentially fit the data the same as the previous model that had constrained the intercepts, $\Delta\chi^2(50) = 67.90$, $p = .047$, ΔCFI = −0.001, ΔTLI = 0.001, ΔRMSEA = 0.001, ΔSRMR = 0.004. Therefore, we concluded that the ICS functioned similarly by age group and race/ethnicity.

3.3.2. Structural model

Overall, the hypothesized model presented in Fig. 1 was an adequate to good fit for the data, $\chi^2(622) = 1662.511$, $p < .001$; CFI = 0.970; TLI = 0.968; RMSEA = 0.053; SRMR = 0.065. We consulted Legrange Multiplier tests; however, we could not identify any parameters that would be theoretically justifiable to add. Therefore, we favored parsimony and interpreted the parameters of our hypothesized model (Anderson & Gerbing, 1988). Table 11 depicts all of the direct effects for the hypothesized model.

First, we tested for effects of women's age and race/ethnicity regarding internal consent feelings. Controlling for all other predictor variables, women reported lower feelings of internal consent the older they were, β = −0.123, $p = .011$. Race/ethnicity did not have a direct effect on women's internal consent—in that neither Black nor Hispanic/Latina women differed from White women.

Second, the model proposed that women's internal consent feelings would be directly associated with their partner's consent communication cues. Women's internal consent was only directly associated with one of the five types of consent cues they could have perceived their partner to have used. Specifically, women's feelings of internal consent were greater if their partner had let the sexual behavior happen without resisting or stopping it, β = 0.114, $p = .007$.

Third, the model proposed that women's own sexual consent cues would be directly associated with their internal sexual consent feelings. Women's internal consent was directly associated with each of the four active types of consent communication cues, βs ≥ 0.134, $ps \leq .001$. Women who reported higher internal consent were more likely to indicate that they had used explicit verbal cues, implicit verbal cues, explicit nonverbal cues, or implicit nonverbal cues. However, women's internal consent feelings were not associated with endorsing passive cues (i.e., no response), β = 0.005, $p = .909$.

3.3.2.1. Model respecification. Favoring parsimony, we respecified the model to include only the significant direct effects of the hypothesized model (Fig. 2). Overall, this respecified model fit our data better than the hypothesized model, $\Delta\chi^2(200) = -1095.780$, $p < .001$;

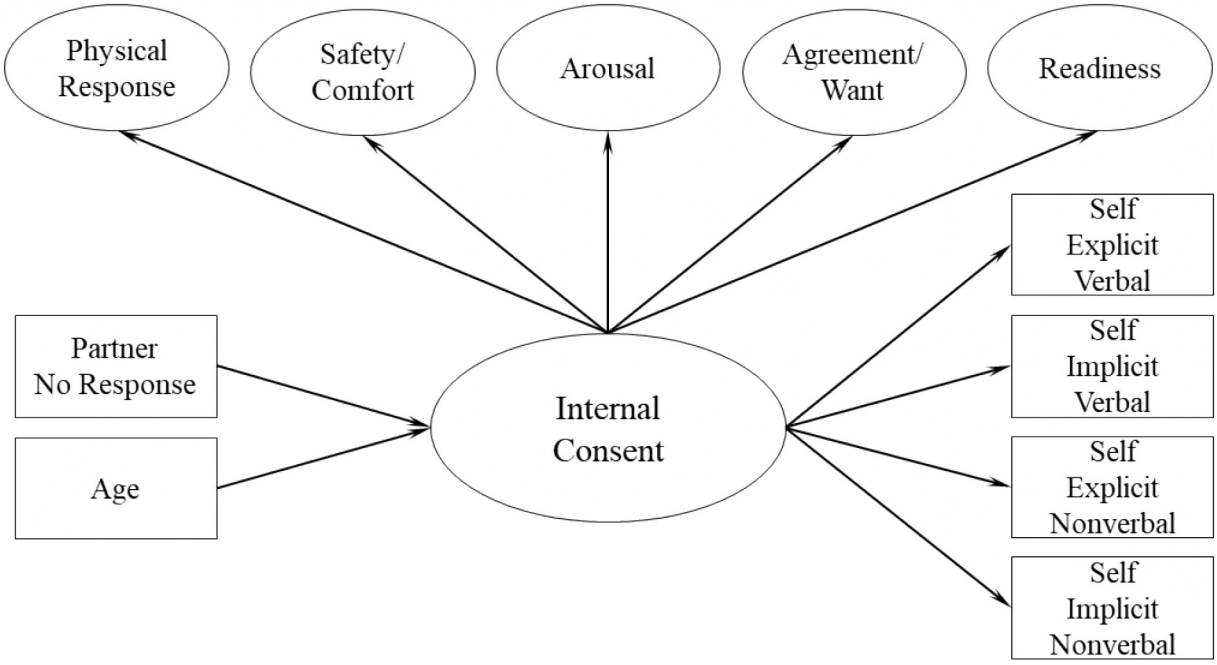

Fig. 2. Respecified model.

Table 12
Direct effects from the respecified model (N = 589).

Variables	β	B	SE	p-Value
Internal consent				
Age	−0.178	−0.007	0.002	< .001
Partner NR	0.145	0.153	0.043	< .001
Self EV				
Internal consent	0.133	0.128	0.039	.001
Self IV				
Internal consent	0.130	0.092	0.025	< .001
Self EN				
Internal consent	0.218	0.214	0.040	< .001
Self IN				
Internal consent	0.181	0.169	0.034	< .001

Note. Underlined variables are exogenous variables. Refer to Fig. 2 for clarification.

ΔCFI = 0.026; ΔTLI = 0.027; ΔRMSEA = −0.029; ΔSRMR = −0.013. Table 12 depicts the direct effects for the respecified model; they all remained significant, βs ≥ 0.130, $ps \leq .001$. Although these effects were statistically significant, they were weak; only one met the recommended minimum effect size that represents a practically significant effect for social science data (i.e., β ≥ 0.2; Ferguson, 2009).

3.3.2.2. Post hoc analyses. To further explore the associations between internal and external consent, we tested our hypothesized model using the five ICS subscales individually (Table 13). Consistent with the model using the full scale, each of the active types of consent communication were significantly associated with each of the types of internal consent feelings. However, the strength of these associations varied within and across subscales. Within all five subscales, internal consent feelings were more strongly associated with using nonverbal consent communication cues, βs ≥ 0.197, $ps \leq .001$, than verbal consent cues, βs ≥ 0.113, $ps \leq .006$. Specifically, all of the subscales' direct effects on using explicit nonverbal consent cues were above the threshold for being practically significant, but none of the subscales had practically significant effects on using explicit verbal consent cues.

These associations between internal and external consent were similar in direction and magnitude for four of the subscales; however, they were much stronger for the arousal subscale. In fact, the direct effects of higher arousal ratings on using explicit or implicit nonverbal consent cues were moderate to large, βs ≥ 0.654, $ps < .001$. The arousal subscale was further remarkable, because it was most associated with women's perceptions of their partner's consent cues. Each type of consent cue women perceived to have been used by a partner was associated with greater feelings of arousal, βs ≥ 0.149, $ps \leq .002$.

These post hoc analyses revealed that there might be nuances across the ICS subscales regarding age and race/ethnicity. Age was associated with lower ratings of internal consent for four of the subscales; however, it was not significantly associated with feelings of safety or comfort, β = −0.065, $p = .150$. This was also the only subscale that demonstrated potentially notable effects regarding race. Compared with White women, Black and Hispanic/Latina women reported significantly greater feelings of safety and comfort; however, these associations were weak, βs ≥ 0.116, $ps \leq .023$.

4. Discussion

The women in our sample commonly endorsed doing nothing as a tactic to indicate their willingness to engage in sexual activity; however, this strategy was not associated with their internal feelings. In fact, we found that women with higher levels of internal consent used increasingly diverse constellations of active consent communication cues. If women's passive cues are not associated with their internal consent feelings, then it may not be best to infer women's sexual consent from the fact that she isn't doing anything to stop the sexual activity. Rather, people who have sex with women should look for and be able to effectively interpret a variety of cues that their partner may use to reflect internal consent—especially because women's nonverbal cues may be more indicative of their internal feelings of consent than their verbal cues.

We found that women's use of nonverbal consent communication cues best reflected their internal consent feelings. While women were also more likely to use verbal cues if they reported elevated feelings of internal consent, these associations were weaker and potentially not practically significant. There are at least three explanations for the relatively weak associations between each of the internal consent subscales and the verbal consent communication cues.

Table 13
Direct effects from the post hoc subscale analyses (N = 589).

	Physical response		Safety/comfort		Arousal		Agreement/want		Readiness	
	β	*p*-Value	β	*p*-Value	β	*p*-Value	β	*p*-Value	β	*p*-Value
Internal consent										
Age	−0.172	< .001	−0.065	.150	−0.112	.017	−0.121	.011	−0.104	.028
Black vs. White	0.043	.397	0.116	.023	0.036	.298	0.021	.673	0.042	.423
Hispanic vs. White	0.072	.151	0.118	.023	0.048	.408	0.058	.250	0.100	.042
Partner EV	0.007	.868	0.065	.136	0.149	.002	0.050	.241	0.039	.384
Partner IV	0.100	.007	0.022	.580	0.172	.002	0.027	.504	−0.012	.761
Partner EN	0.118	.012	0.085	.068	0.316	< .001	0.114	.016	0.146	.002
Partner IN	0.055	.215	0.109	.018	0.321	< .001	0.050	.280	0.067	.144
Partner NR	0.127	.003	0.108	.009	0.389	< .001	0.089	.047	0.151	.001
Self EV										
Internal consent	0.128	.004	0.127	.003	0.187	.006	0.158	< .001	0.131	.002
Self IV										
Internal consent	0.167	< .001	0.144	< .001	0.306	.001	0.124	.001	0.113	.003
Self EN										
Internal consent	0.316	< .001	0.250	< .001	0.691	< .001	0.207	< .001	0.266	< .001
Self IN										
Internal consent	0.237	< .001	0.233	< .001	0.654	< .001	0.197	< .001	0.241	< .001
Self NR										
Internal consent	0.029	.522	0.054	.212	0.367	< .001	−0.002	.959	0.068	.124

Note. Underlined variables are exogenous variables.

First, context is important for sexual consent. In the present study, most of our participants were in exclusive relationships, which can influence people's conceptualizations of sexual consent (Willis & Jozkowski, 2019). For example, people are less likely to perceive the need to communicate sexual consent as a relationship progresses (Beres, 2010; Humphreys, 2007). It may be that internal feelings of consent are more strongly associated with verbal consent cues when women are with relatively novel sexual partners. Unfortunately, we did not collect data on relationship length to test this potential effect. Future research should examine the associations between internal and external consent in samples that are diverse regarding relationship status and sexual history. Because relationship context is important, it will also be important to collect dyadic data to examine consent cues used and perceived by each partner.

Second, it may be that women are simply less likely to communicate their internal consent verbally. Previous research indicates that people report using verbal consent cues less frequently than nonverbal cues (Muehlenhard et al., 2016). Further, people tend to believe that verbal communication about sex is awkward and can ruin the mood (Curtis & Burnett, 2017; Foubert, Garner, & Thaxter, 2006). It may be that some women experience diminished levels of internal consent like physical response, comfort, or arousal if they used verbal cues; thus, weakening the positive associations between these types of consent cues and other internal consent feelings. Research is mixed regarding gender differences in consent communication: it is unclear whether women are more likely (e.g., Willis et al., 2019) or less likely (e.g., Jozkowski, Peterson, et al., 2014) than men to communicate their consent with explicit verbal cues. Future research should test our model in a sample of men to determine the types of consent communication cues that are associated with their internal consent feelings—and how these associations compare with women's.

Third, we may have only been able to observe small effect sizes due to the restricted range of internal consent scores. The average woman in our study reported agreeing or strongly agreeing with most of the items assessing her internal consent feelings. As a result, the amount of variability regarding internal consent was limited and our findings may only reflect differentiations at the higher end of the internal consent spectrum. It is important to note that this restricted range explanation does not account for our finding that nonverbal consent cues were consistently more strongly associated with women's internal consent feelings. Studies that apply our model to men will likely encounter this restricted range as well, because men have scored as high as women on all subscales (Jozkowski & Wiersma, 2015) or higher than women on feelings of safety/comfort and arousal (Jozkowski, Sanders, et al., 2014).

4.1. Sexual consent and individual differences

Our systematic review corroborates accounts that the sexual consent literature may rely too heavily on White college-aged samples (e.g., Muehlenhard et al., 2016). In our sample that varied by age and race/ethnicity, we provided evidence that the ICS measures internal feelings of consent similarly across age groups and race/ethnicity.

We found that women's internal consent feelings are associated with their age. Though the effects were weak, participants consistently endorsed lower levels of internal consent the older they were. The subscale that was most negatively associated with age (i.e., physical response) included questions regarding feeling vaginally lubricated and lustful—constructs that are negatively associated with age (Chedraui, Perez-Lopez, San Miguel, & Avila, 2009; Hayes & Dennerstein, 2005). Therefore, the age differences seen on the ICS in this study may reflect changes in sexual function associated with increasing age.

The bivariate associations that we found regarding sexual consent and race/ethnicity were also weak and disappeared when controlling for age. Overall, our data tentatively suggest that previous findings based on predominantly White samples are potentially tenable for other populations regarding race/ethnicity. Nevertheless, we still recommend that future research further examine the nuances of sexual consent in racial/ethnic minorities. For example, qualitative research in these populations is needed to provide a richer description of their experiences with sexual consent and to inform research questions.

Despite not being able to assess the effects of several individual differences that have been identified as pertinent to sexual consent (e.g., gender, relationship status), we provided a much-needed step forward in emphasizing the active investigation of individual differences in age and race/ethnicity when researching sexual consent. Other individual differences potentially relevant to sexual consent feelings and communication include partner's gender, personality, and mental or physical abilities. Finally, to assess the relative importance of individual differences, studies are needed to examine how much variability in sexual consent is due to between- versus within-person differences.

5. Conclusion

We provided conclusive evidence that the sexual consent literature disproportionately relies on data collected from college-aged White participants. In a relatively large sample that was diverse regarding age and race/ethnicity, we found that women's internal feelings of consent predicted their active communication of that consent—especially non-verbal cues. Because using passive consent cues was unrelated to women's internal consent feelings, we support initiatives that encourage relying on active communication to interpret women's consent. Perhaps the best indicator of a woman's consent is her active use of multiple indicators of consent.

Appendix A. Pilot systematic review

Supplementary data to this article can be found online at https://doi.org/10.1016/j.paid.2019.05.029.

References

Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin, 103*(3), 411–423. https://doi.org/10.1037/0033-2909.103.3.411.

Beres, M. (2010). Sexual miscommunication? Untangling assumptions about sexual communication between casual sex partners. *Culture, Health & Sexuality, 12*(1), 1–14. https://doi.org/10.1080/13691050903075226.

Beres, M. A. (2007). 'Spontaneous' sexual consent: An analysis of sexual consent literature. *Feminism & Psychology, 17*(1), 93–108. https://doi.org/10.1177/0959353507072914.

Beres, M. A. (2014). Rethinking the concept of consent for anti-sexual violence activism and education. *Feminism & Psychology, 24*(3), 373–389. https://doi.org/10.1177/0959353514539652.

Beres, M. A., Herold, E., & Maitland, S. B. (2004). Sexual consent behaviors in same-sex relationships. *Archives of Sexual Behavior, 33*(5), 475–486. https://doi.org/10.1023/B:ASEB.0000037428.41757.10.

Chedraui, P., Perez-Lopez, F. R., San Miguel, G., & Avila, C. (2009). Assessment of sexuality among middle-aged women using the Female Sexual Function Index. *Climacteric, 12*(3), 213–221. https://doi.org/10.1080/13697130802607727.

Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences.* 3rd ed)Mahwah, NJ: Erlbaum.

Curtis, J. N., & Burnett, S. (2017). Affirmative consent: What do college student leaders think about "yes means yes" as the standard for sexual behavior? *American Journal of Sexuality Education, 12*(3), 201–214. https://doi.org/10.1080/15546128.2017.1328322.

Ferguson, C. J. (2009). An effect size primer: A guide for clinicians and researchers. *Professional Psychology: Research and Practice, 40*(5), 532–538. https://doi.org/10.1037/a0015808.

Foubert, J. D., Garner, D. N., & Thaxter, P. J. (2006). An exploration of fraternity culture: Implications for programs to address alcohol-related sexual assault. *College Student Journal, 40*(2), 361–373.

George, D., & Mallery, P. (2010). *SPSS for windows step by step: A simple guide and reference 17.0 update.* Boston, MA: Allyn y Bacon.

Hayes, R., & Dennerstein, L. (2005). The impact of aging on sexual function and sexual dysfunction in women: A review of population-based studies. *Journal of Sexual Medicine, 2*(3), 317–330. https://doi.org/10.1111/j.1743-6109.2005.20356.x.

Hickman, S. E., & Muehlenhard, C. L. (1999). "By the semi-mystical appearance of a condom": How young women and men communicate sexual consent in heterosexual situations. *Journal of Sex Research, 36*(3), 258–272. https://doi.org/10.1080/00224499909551996.

Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal, 6*(1), 1–55.

Humphreys, T. (2007). Perceptions of sexual consent: The impact of relationship history and gender. *Journal of Sex Research, 44*(4), 307–315. https://doi.org/10.1080/00224490701586706.

Jozkowski, K. N., Canan, S. N., Rhoads, K., & Hunt, M. (2016). Methodological considerations for content analysis of sexual consent communication in mainstream films. *Sexualization, Media, & Society, 2*(4), 1–17. https://doi.org/10.1177/2374623816679184.

Jozkowski, K. N., Marcantonio, T. L., & Hunt, M. E. (2017). College students sexual consent communication and perceptions of sexual double standards: A qualitative investigation. *Perspectives on Sexual and Reproductive Health, 49*(4), 237–244. https://doi.org/10.1363/psrh.12041.

Jozkowski, K. N., & Peterson, Z. D. (2013). College students and sexual consent: Unique insights. *Journal of Sex Research, 50*(6), 517–523. https://doi.org/10.1080/00224499.2012.700739.

Jozkowski, K. N., & Wiersma, J. D. (2015). Does drinking alcohol prior to sexual activity influence college students' consent? *International Journal of Sexual Health, 27*(2), 156–174. https://doi.org/10.1080/19317611.2014.951505.

Jozkowski, K. N., Peterson, Z. D., Sanders, S. A., Dennis, B., & Reece, M. (2014). Gender differences in heterosexual college students' conceptualizations and indicators of sexual consent: Implications for contemporary sexual assault prevention education. *Journal of Sex Research, 51*(8), 904–916. https://doi.org/10.1080/00224499.2013.792326.

Jozkowski, K. N., Sanders, S., Peterson, Z. D., Dennis, B., & Reece, M. (2014). Consenting to sexual activity: The development and psychometric assessment of dual measures of consent. *Archives of Sexual Behavior, 43*(3), 437–450. https://doi.org/10.1007/s10508-013-0225-7.

Muehlenhard, C. (1995/1996). The complexities of sexual consent. *SIECUS Report, 24*, 4–7.

Muehlenhard, C. L., Humphreys, T. P., Jozkowski, K. N., & Peterson, Z. D. (2016). The complexities of sexual consent among college students: A conceptual and empirical review. *Journal of Sex Research, 53*(4–5), 457–487. https://doi.org/10.1080/00224499.2016.1146651.

Muthén, L. K., & Muthén, B. O. (2010). *Mplus user's guide* (6th ed.). Los Angeles, CA: Muthén & Muthén.

O'Sullivan, L. F., & Brooks-Gunn, J. (2005). The timing of changes in girls' sexual cognitions and behaviors in early adolescence: A prospective, cohort study. *Journal of Adolescent Health, 37*(3), 211–219. https://doi.org/10.1016/j.jadohealth.2004.08.019.

Peterson, Z. D., & Muehlenhard, C. L. (2007). Conceptualizing the "wantedness" of women's consensual and nonconsensual sexual experiences: Implications for how women label their experiences with rape. *Journal of Sex Research, 44*(1), 72–88. https://doi.org/10.1080/00224490709336794.

Wiederman, M. W. (2005). The gendered nature of sexual scripts. *The Family Journal, 13*(4), 496–502. https://doi.org/10.1177/1066480705278729.

Willis, M., Hunt, M., Wodika, A., Rhodes, D. L., Goodman, J., & Jozkowski, K. N. (2019). Explicit verbal sexual consent communication: Effects of gender, relationship status, and type of sexual behavior. *International Journal of Sexual Health,* 1–11. https://doi.org/10.1080/19317611.2019.1565793.

Willis, M., & Jozkowski, K. N. (2019). Sexual precedent's effect on sexual consent communication. *Archives of Sexual Behavior*. https://doi.org/10.1007/s10508-018-1348-7.